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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/787,221	02/27/2004	Kouichi Okugami	70456-016	4835
<div>7590 12/17/2008 MCDERMOTT, WILL &amp; EMERY 600 13th Street, N.W. WASHINGTON, DC 20005-3096</div>				
<div>EXAMINER KRAUSE, JUSTIN MITCHELL</div>				
ART UNIT		PAPER NUMBER		
3656				
MAIL DATE		DELIVERY MODE		
12/17/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/787,221

**Applicant(s)**

OKUGAMI ET AL.

**Examiner**

JUSTIN KRAUSE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 5-8 and 13-15 is/are pending in the application.
- 4a) Of the above claim(s) 13 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-8, 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 29, 2008 has been entered.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takemura et al (US Patent 6,440,232) in view of Takemura et al (US Patent 6,224,688).

The term "transmission component" is being treated under its broadest reasonable interpretation. Herein, transmission component is being treated as a component capable of transmitting a force.

The preamble recites intended use of the device and introduces no structure to the device. The preamble is deemed to end with the phrase, "said component having", with all previous language reciting the intended use environment of the device.

"The preamble is not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone." See *In re Hira*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Takemura '232 discloses a rolling bearing that is a transmission component having material with a carbonitrided surface layer and a non-diffusible hydrogen content of at most 0.5 ppm. As Takemura '232 discloses the diffusible hydrogen content, and specifically details all of the other material contents, there is reason to believe, based on the detail to which the material composition is disclosed and does not include non-diffusible hydrogen that the non-diffusible hydrogen content of Takemura's material is zero. In accordance with *In re Best*, 562 F.2d 1252, 195 USPQ 430, 433 (CCPA 1977):

[W]here the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on.

This “burden of rebutting [may be of] the PTO’s reasonable assertion of inherency under 35 USC 102, or of prima facie obviousness under 35 USC 103” (195 USPQ at 432).

Accordingly, the burden is placed upon the applicant to prove that the limitation(s) in question is/are not (an) inherent characteristic(s) of the reference disclosure.

Takemura '232 does not disclose a grain size number exceeding 10.

Takemura '688 discloses a rolling bearing having a nitriding layer at a surface layer with an austenite grain size number of 11 or above (Col 5, line 59) for the purpose of forming ultra-fine crystal grains which retards cracking within the matrix (Col 5, lines 42-55).

Regarding the limitation that the nitriding layer is formed by a carbonitriding process, “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Regarding claims 5-8, there is reason to believe, based on the similarity of (material, structure, etc.), that the functional limitation(s) of fracture stress may be (an)

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inherent characteristic(s) of Takemura's material. In accordance with *In re Best*, 562 F.2d 1252, 195 USPQ 430, 433 (CCPA 1977):

[W]here the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on.

This "burden of rebutting [may be of] the PTO's reasonable assertion of inherency under 35 USC 102, or of prima facie obviousness under 35 USC 103" (195 USPQ at 432).

Accordingly, the burden is placed upon the applicant to prove that the limitation(s) in question is/are not (an) inherent characteristic(s) of the reference disclosure.

Claims 5-8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takemura '232 in view of Takemura '688, further in view of Maeda et al (US Patent 6,423,158).

Takemura '232 and Takemura '688 disclose the claimed subject matter as described above, but do not explicitly disclose a tapered roller bearing having an inner ring, and outer ring and a tapered roller.

Maeda et al teaches a carbonitrided tapered roller bearing having an inner ring (13), an outer ring (15), and a tapered roller (16) in a transmission for the purpose of supporting both radial and thrust loads.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the bearing of Takemura '688 by using a tapered roller bearing as taught by Maeda, the motivation would have been to support both radial and thrust loads.

### ***Response to Arguments***

Applicant's arguments filed 10/29/08 have been fully considered but they are not persuasive. Applicant's arguments fail to meet the burden of evidence required to overcome the presumption of inherency required by *Best*.

Regarding applicant's argument that the '688 reference teaches away from carbonitriding, applicant references lines 52-56 of column 2. A review of the cited passage shows a discussion of a prior art document, pointing out a known problem which the invention of the '688 invention is intended to solve. Therefore the '688 reference does not teach away from carbonitriding, as the product of the '688 reference contains carbonitrided elements.

Regarding applicant's argument that no transmission having toothed wheels is disclosed by the prior art, absent any structural link between the toothed wheels and the claimed transmission component incorporated into the transmission, "incorporated

into a transmission . . . by means of toothed wheels” merely recites the intended environment and the body of the claim has no reliance on the intended use recitation.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUSTIN KRAUSE whose telephone number is (571)272-3012. The examiner can normally be reached on Monday - Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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/Justin Krause/

Examiner, Art Unit 3656

/Richard WL Ridley/

Supervisory Patent Examiner, Art Unit 3656